IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re the Application of:

CHANG HEE HYOUNG, ET AL.

Application No.:

Filed:

For: **Switched Coupler Type Digital Phase Shifter Using Quadrature Generator**

Art Group:

Examiner:

INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. §1.97

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In accordance with the duty of disclosure, enclosed is a copy of Information Disclosure Statement by Applicant (form PTO/SB/08), which is being submitted concurrently with the Utility Application. It is respectfully requested that the cited references be considered and that the enclosed copy of PTO/SB/08 be initialed by the Examiner to indicate such consideration and a copy thereof returned to applicant(s).

The submission of this Information Disclosure Statement is not to be construed as a representation that a search has been made in the subject application and is not to be construed as an admission that the information cited in this statement is material to patentability.

Please charge any fees due to Deposit Account 02-2666. A duplicate copy of the Fee Transmittal (PTO/SB/17) is enclosed for this purpose.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Date: 11/12/03

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Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet | | **of** |

Complete if Known	
Application Number	
Filing Date	
First Named Inventor	Chang Hee Hyoung
Art Unit	
Examiner Name	
Attorney Docket Number	51876P410

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number: Number - Kind Code[2] *(if known)*	Publication Date or Issue Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		US-5334959	08-02-1994	Krafcsik et al.	
		US-5379007	01-03-1995	Nakahara	
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FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Foreign Patent Document: Country Code[3] - Number[4] - Kind Code[5] *(if known)*	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T[6]
		2002-28258	04-17-2002	Electronics and Telecommunications Research Institute		

Examiner Signature		Date Considered	

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

[1]Applicant's unique citation designation number (optional). [2]See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. [3]Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). [4]For Japanese patent documents, the indication of the year of reign of the Emperor must precede the serial number of the patent document. [5]Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. [6]Applicant is to place a check mark here if English language Translation is attached.

Based on PTO/SB/08A (08-03) as modified by Blakely, Sokoloff, Taylor & Zafman (wlr) 08/11/2003.

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet		of	

Complete if Known	
Application Number	
Filing Date	
First Named Inventor	Chang Hee Hyoung
Art Unit	
Examiner Name	
Attorney Docket Number	51876P410

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]
		"Microwave ICI control components for phased-array antennas", Electronics & Communications Engineering Journal, June 1992, Pages 123-130	
		"An Ultra-Broad-Band Reflection-Type Phase-Shifter MMIC With Series and Parallel LC Circuits", K . Miyaguchi, IEEE Transactions on Microwave Theory and Techniques, Vol. 49, No. 12, Dec. 2001, pages 2446-2452	
		"A Single Chip X-Band Phase Shifter With 6 Bit Uncorrected Phase Resolution and More Than 8 Bit Corrected Phase Resolution", T. Tieman, et al, 1992 IEEE MTT-S Digest, pages 171-174	
		"4:1 Bandwidth Digital Five Bit MMIC Phase Shifters", D.C. Boire, IEEE 1989 Microwave and Millimeter-wave Monolithic Circuits Symposium, pges 69-73	

Examiner Signature		Date Considered	

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

[1]Applicant's unique citation designation number. [2]Applicant is to place a check mark here if English language Translation is attached.

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Information Disclosure Statement

New U.S. Patent Application for
SWITCHED COUPLER TYPE DIGITAL PHASE SHIFTER
USING QUADRATURE GENERATOR
Our Ref. No.: P02EC041/US/jk

Reference No.:

(1) US Patent No. 5,334,959
(2) US Patent No. 5,379,007
(3) KR Laid-Open No. 2002-28258

(4) Microwave ICI control components for phased-array antennas
(Electronics & Communications Engineering Journal, June 1992, Pages 123-130)

(5) An Ultra-Board-Band Reflection-Type Phase-Shifter MMIC With Series and Parallel LC Circuits
(IEEE Transactions on Microwave Theory and Techniques, Vol. 49, No. 12, December 2001, Pages 2446-2452)

(6) A single Chip X-Band Phase Shifter with 6 Bit Uncorrected Phase Resolution and More Than 8 Bit Corrected Phase Resolution
(1992 IEEE MTT-S Digest, Pages 171-174)

(7) 4:1 Bandwidth Digital Five Bit MMIC Phase Shifters
(IEEE 1989 Microwave and Millimeter-wave Monolithic Circuits Symposium, Pages 69-73)